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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) MWS-041	
	Application Number 09/910170-Conf. #1865	Filed July 20, 2001	
	First Named Inventor Howard TAITEL		
	Art Unit 2161	Examiner F. Coby	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant /inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>L0248</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____</p> <p> _____ Signature</p> <p><u>EuiHoon Lee</u> _____ Typed or printed name</p> <p><u>(617) 227-7400</u> _____ Telephone number</p> <p><u>July 27, 2006</u> _____ Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p> <p><input type="checkbox"/> *Total of <u>1</u> forms are submitted.</p>			

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## PRE-APPEAL BRIEF REQUEST FOR REVIEW

### Introductory Comment

Applicant's claims 1-42 were originally rejected in an Office Action dated June 8, 2004. Applicant filed a response to the rejection on October 8, 2004. In a second Office Action mailed March 1, 2005, claims 8, 9 and 24-42 were allowed, and claims 1-7 and 10-23 were rejected. Applicant filed a response to the rejection on April 19, 2005. Applicant's claims 1-42 were rejected based on a new prior art reference in a third Office Action dated July 14, 2005. Responsive to the third Office Action, Applicant filed an Amendment on October 14, 2005. Applicant's claims were finally rejected in an Office Action dated January 27, 2006. Applicant filed a response to the final rejection on April 27, 2006. The Examiner maintained his rejection in an Advisory Action dated June 21, 2006 from which Applicant files herewith a Notice of Appeal.

### Brief Summary of the Invention

The claimed invention provides a real-time execution of a model, such as a block diagram model. In an illustrative embodiment described in the specification with reference to Fig. 3, for example, a block diagram model (50) may include portions that are critical or non-critical to a real-time execution of the model. The automatic code generation process (82) may determine whether a portion of the block diagram model (50) is critical or non-critical to a real-time execution of the model (step 84). The non-critical portions may be post-processing units (PPU) of the model that have no data outputs that feed non-post-processing sections of the model. If a portion of the model is marked as a PPU, no code is generated for the portion (step 86). If the portion is not marked as a PPU, code is generated for the portion (step 88). The generated code may be executed in real-time on a target processor (32) and the output of the code execution may be received by and processed in the non-critical portions of the model, which may be executed in a host computer (12).

### Arguments

Pending in the application are claims 1-16 and 18-42, of which claims 1, 8, 9, 10, 16, 24, 26, 30, 34 and 35 are independent. The Examiner rejected the claims under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,901,579 (hereinafter “Suguta”). Independent claim 16 was also rejected pursuant to 35 U.S.C. §103(a) as being obvious over Suguta. In the case of independent claims 1, 8, 9, 10, 16, 24, 26, 30, 34 and 35, Suguta fails to disclose that code for a model is generated based on the portions of the model that are critical to the real-time execution of the model. In the case of independent claim 16, the Suguta reference fails to teach or suggest that code for a model is generated based on the portions of the model that are critical to the real-time execution of the model.

### §102 Rejections

Independent claims 1, 8 and 9 recite identifying portions of a model as being critical to a real-time execution of the model, and other portions as being non-critical to a real-time execution of the model, and generating code that is capable of real-time execution based on the critical portions of the model.

Independent claims 10 and 26 recites specifying a model including a first subset of sections designated as post processing unit sections, and a second subset of sections designated as core processing unit sections, and generating code for the model using the second subset of sections.

Independent claim 16 recites a system including a graphical user interface (GUI) adapted to receive user inputs to specify components of a model in one of a first subset of sections designated as post-processing elements of a model and a second subset of

sections designated as core elements of the model, and an automatic code generator for generating code capable of real-time execution based on the second subset of sections.

Independent claims 24, 34 and 35 recites receiving a user input through a graphical user interface (GUI) specifying a block diagram model, the block diagram model including sections, a first subset of sections designated post-processing unit sections and a second subset of the sections designated as core processing unit sections, and generating software source code for the block diagram model with a code generator using the second subset.

The independent claims thus require that code for a model is generated using a portion of the model designated as a core processing unit, which is critical to the real-time execution of the model. Suguta fails to disclose or teach this feature.

Suguta generates an object-oriented language program from a class definition. Suguta discloses generating an object-oriented program from generation pattern descriptions with the structure information extracted from the class definitions. See Suguta, Column 2, lines 52-61. Suguta is provided to verify whether or not the generated program includes a definition which conflicts with an existing program immediately after the generation of the program, without waiting for the compiling of the generated program. See Suguta, Abstract.

The Examiner asserts in the Office Action that the code generation of the claimed invention “is realized as automatic generation of a copy constructor in an objected oriented programming language program,” as disclosed in Suguta. See the final Office Action, page 6, lines 20-21. Although Suguta discloses automatic generation of an objected oriented language program, Suguta does not disclose generation of code for a model that is capable of real-time execution based on the critical portions of the model, as recited in the claimed invention. In the claimed invention, code for a model is generated using the portions of the model that are critical to the real time execution of the model.

In the Office Action, the Examiner also asserts that “[s]ince Suguta allows automatic generation of source code, generation of code that is capable of real-time execution is realized.” See the final Office Action, page 7, lines 2-3. Although Suguta discloses automatic generation of code, Suguta does not disclose generation of code that is capable of real-time execution. Indeed, there is no mention of the term "real-time execution" or any other related terminology in Suguta, because Suguta is entirely unconcerned with real-time code execution.

Suguta discloses in Fig. 4 an automatic object-oriented program generation apparatus including an input/output unit (9). Suguta discloses that a user (a programmer) can give an instruction such as a class definition (11) or a generation pattern description (41) to the computer system so that a program can be generated. Suguta, however, does not disclose a graphical user interface that enables a user to specify which components of a model are post-processing elements or core elements of the model. It appears that a user or programmer cannot specify which components of a model are post-processing elements or core elements using the input/output unit (9) of the Suguta reference.

In light of this, Suguta does not disclose each and every element required by Applicant's claims. Accordingly, Applicant believes claims 1-16 and 18-42 are in condition for allowance.

#### §103 Rejection

Claims 16 recites a graphical user interface (GUI) adapted to receive user inputs to specify components of a model in one of a first subset of sections designated as post-processing elements of a model and a second subset of sections designated as core elements of the model.

In Fig. 4, Suguta teaches an input/output unit (9) for a user (a programmer) to input an instruction, such as a class definition (11) or a generation pattern description (41), to the computer system. Suguta, however, does not teach a graphical user interface that enables a user to specify which components of a model are post-processing elements or core elements of the model. The GUI of the claimed invention is different than the user interface of the Suguta reference, which is adapted to receive a class definition (11) or a generation pattern description (41).

In light of this, Suguta also fails to teach all of the required limitations in claim 16. Accordingly, Applicant believes claim 16 is also in condition for allowance.

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Respectfully submitted,

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